



Offsets with outcomes

An ecologist's perspective on how QTFN work toward best practice in engaging with Koala offsets in SEQ

Thurston, a rehabilitated koala that now resides on QTFN Koala Crossing



*We work on Jagera, Yuggera
and Ugarapul land. We
acknowledge the ancestors
and pay our respects to
elders –past, present and
emerging –and work to
protect and preserve
Yuggera country for all.*

View across the Fassifern valley to the Main Range from Mt Tambora (Mt Ivory)



The critiques

Is it really 'no net loss'?

Are we replacing like with like?

Can adaptive management create biodiversity gains?

Are we incentivising good behaviour?

Offset policy


Impact
assessment &
approval

Selecting
sites
strategically

Setting
informed
baselines

Data -driven
adaptive
management

Perpetuity
post -offset



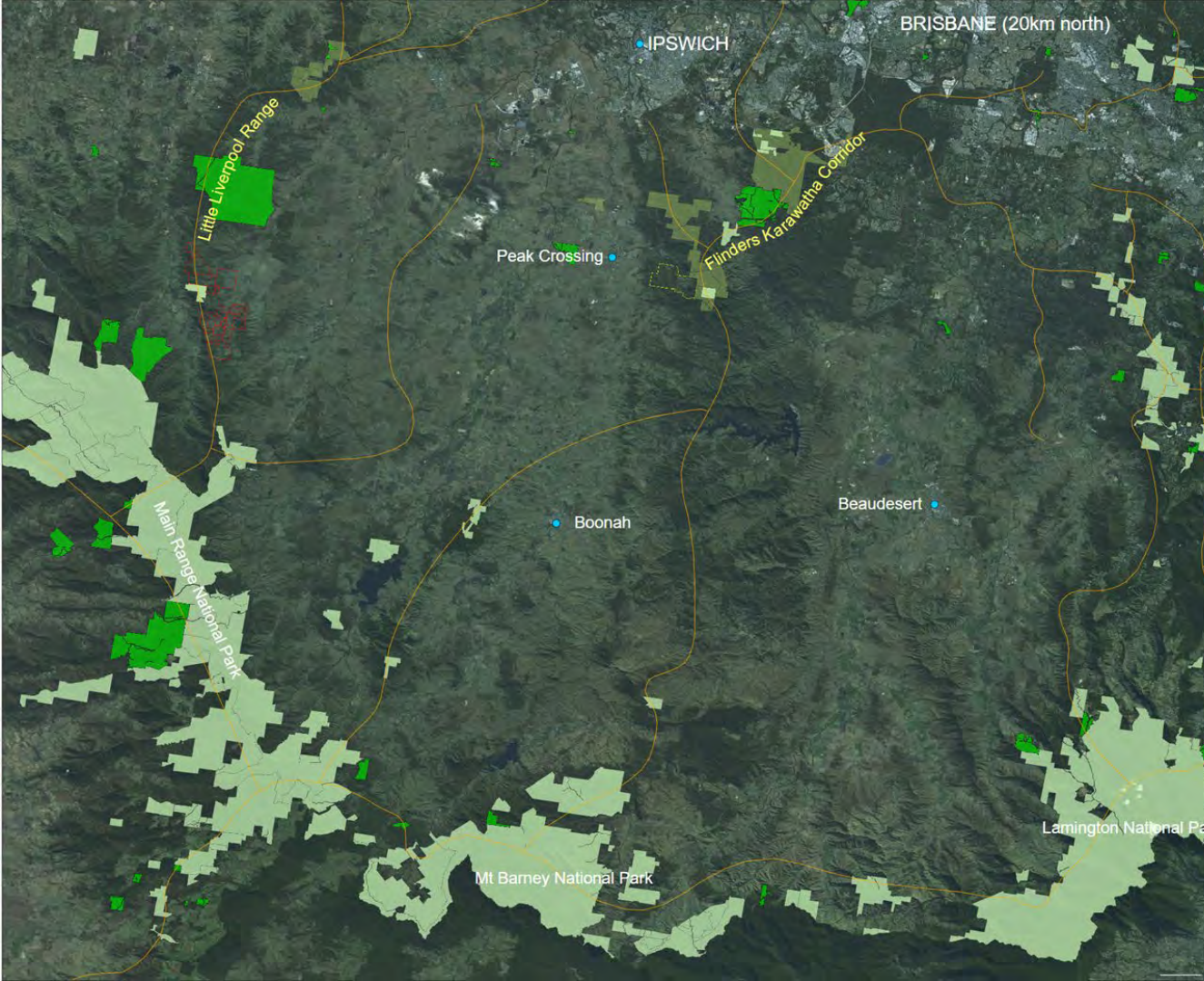
QTFN Aroona Station in the Little Liverpool Range, a major wildlife corridor on Brisbane's expanding western fringe

What does best practice look like?

Landscape focused strategy
to create and protect
corridors for the future

Data driven adaptive
management guided by
research and monitoring

Going beyond the basic to
grow our understanding of
Koala ecology in our region



SEQ is a rapidly growing region

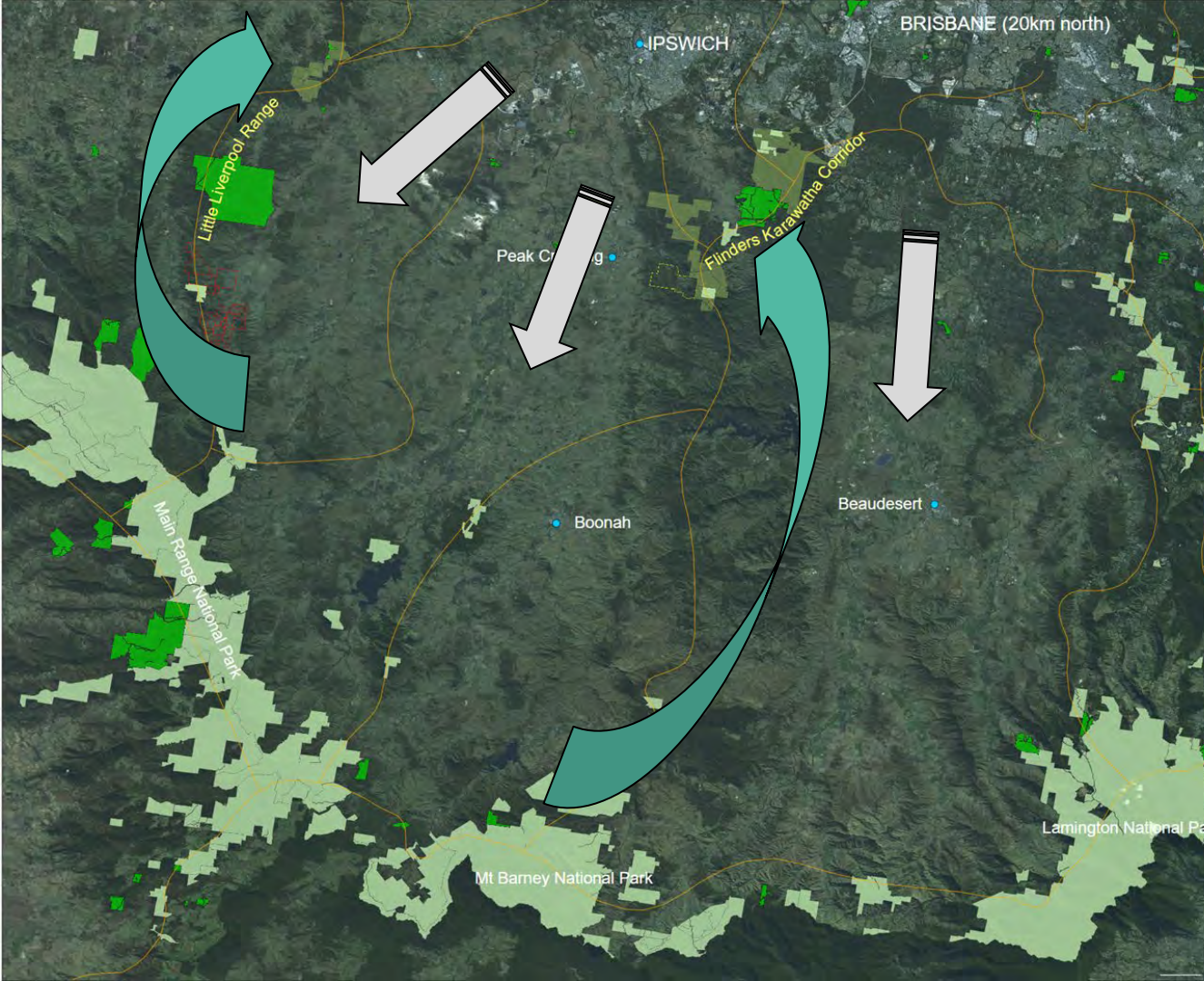
Corridors exist, but need to be
protected and restored
before encroachment

Protecting high-value habitat
in those corridors can take
many forms:

Our reserves

Our partnerships

Conservation on private land



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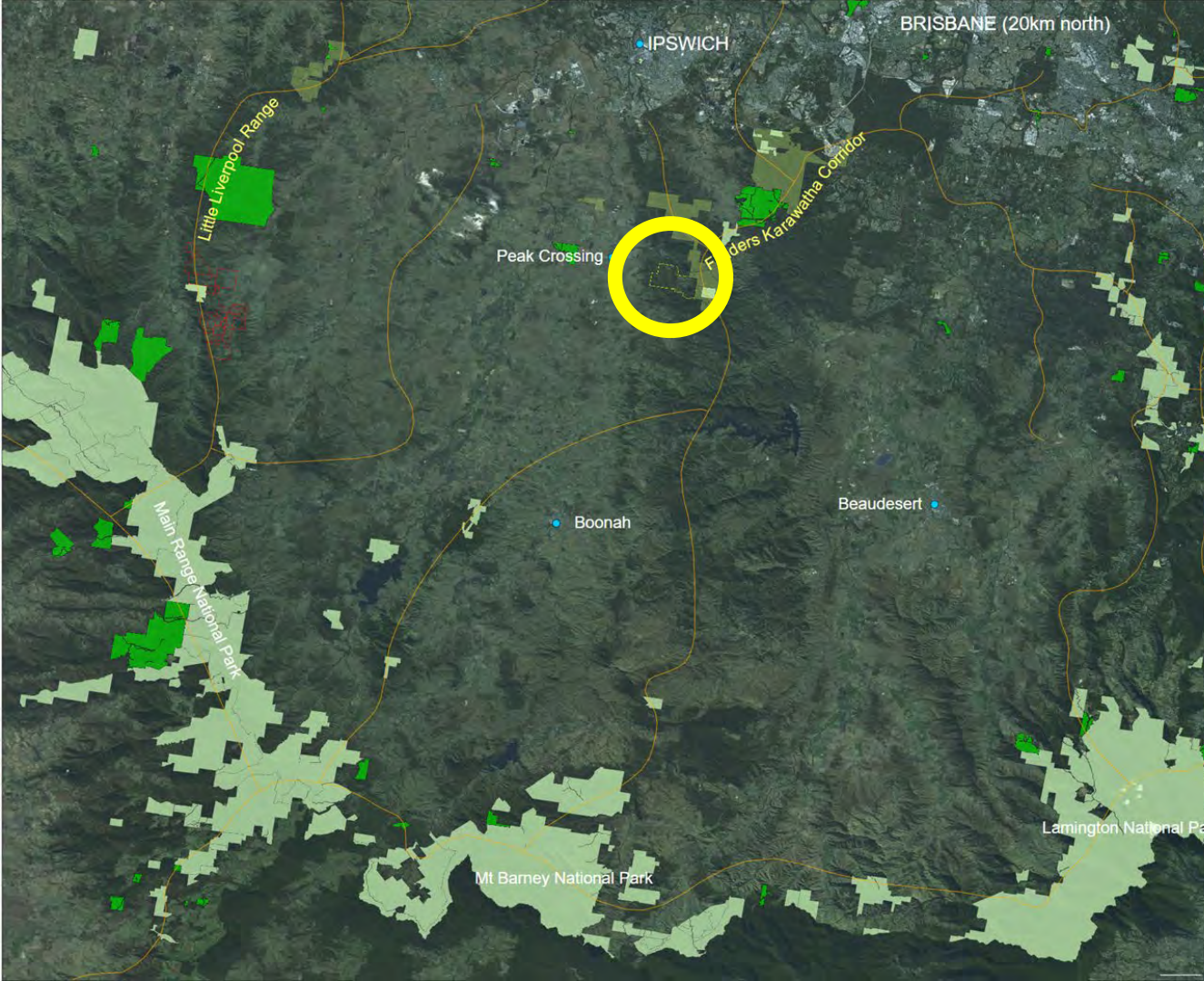
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Koala Crossing

~600ha within Flinders Karawatha corridor purchased in 2015-2016

High quality mature regrowth, remnant endangered regional ecosystems and cleared areas of restoration priority

Not just koalas - other threatened and rare species and a community of engaged citizens

Five years post-purchase review





Data & metrics

Monitoring and checkpoints -
internal guidance, external review

Imagining alternate futures
using data

Adaptive management
in practice

Social and environmental impact

*Koala in mature
regrowth Eucalyptus
tereticornis on QTFN
Koala Crossing*

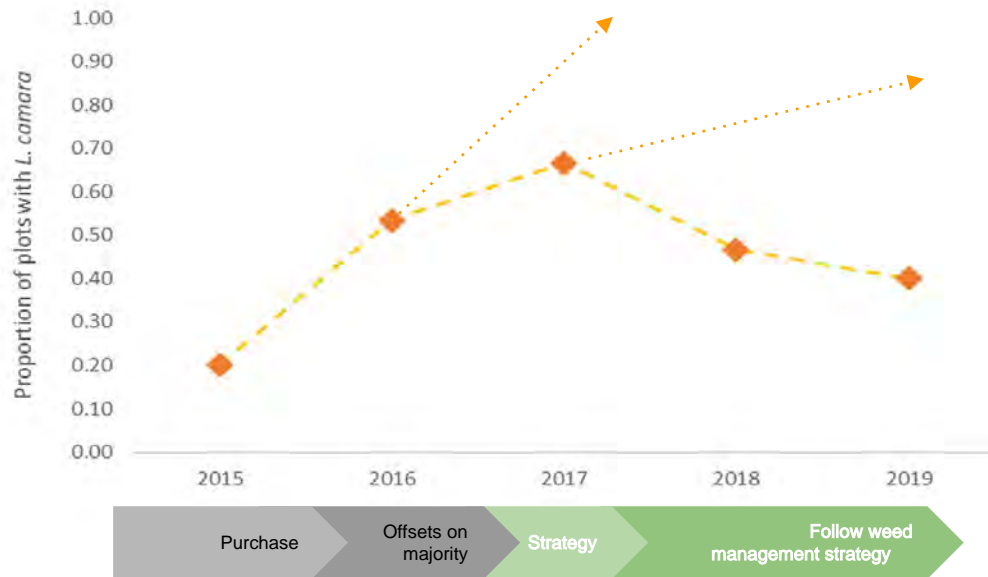
Imagined futures

Existing weed issues exacerbated when stock were removed and little support for weed management

Research and monitoring guided a weed strategy to rectify the problem

One fire goes out, another emerges -
L. camara to *L. montevidiensis*

Scientific experimentation, collection & analysis of data dictates how we adaptively manage



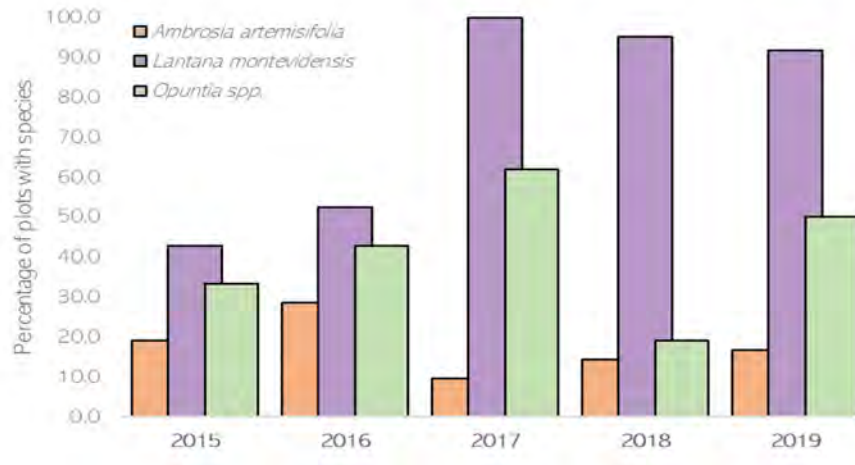
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Natural regeneration & revegetation



Natural regeneration of
Eucalyptus tereticornis





Beyond basics

Fill data gaps instead of
falling into them

Foster and fuel research

Train and engage ecologists,
conservation workers & informed
citizens of the future

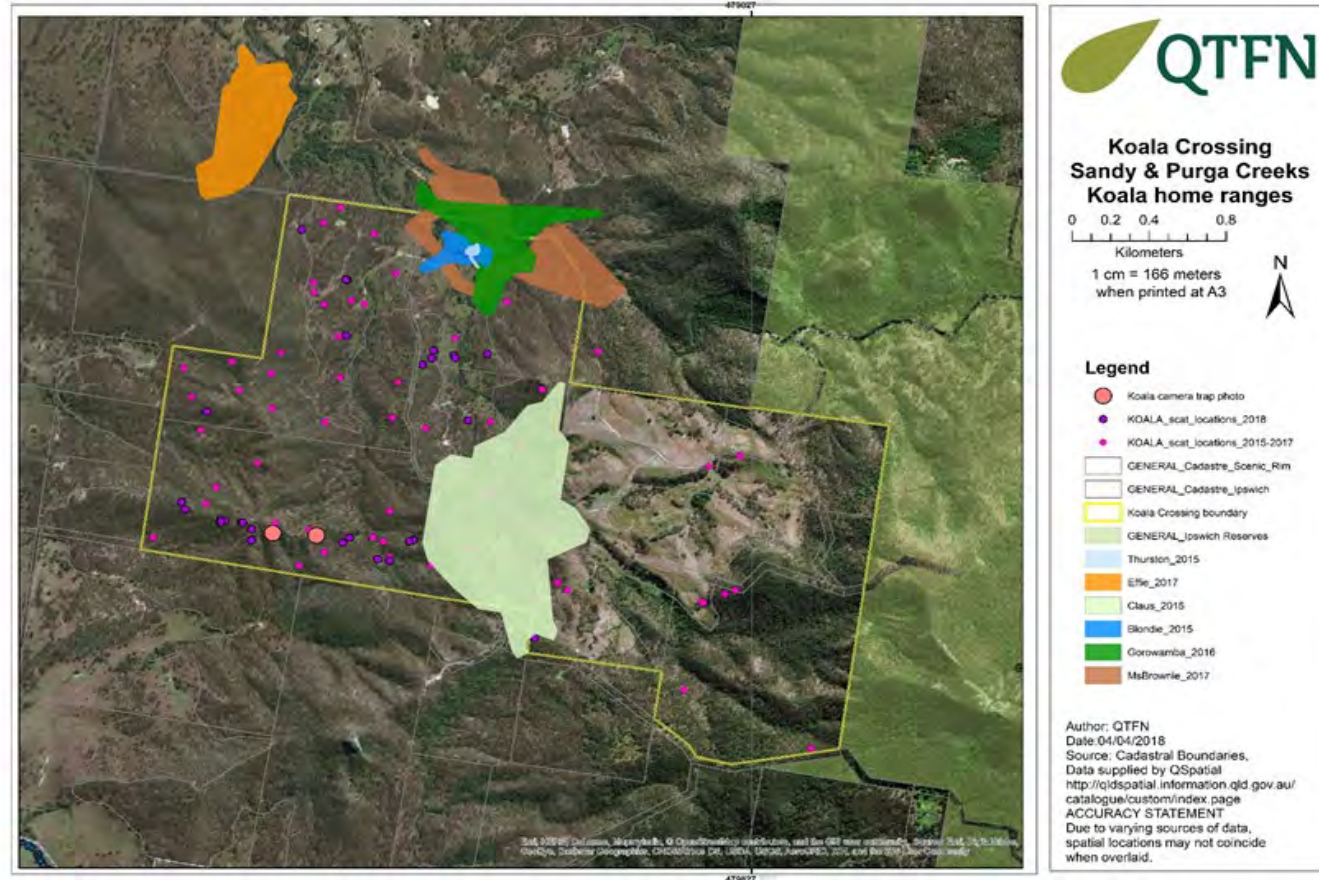
Look for the next best way to
monitor our koalas

Foster and fuel

Offset funds contribute to research into koala health and movement

Home range of Ipswich koalas
x5 larger than the coast

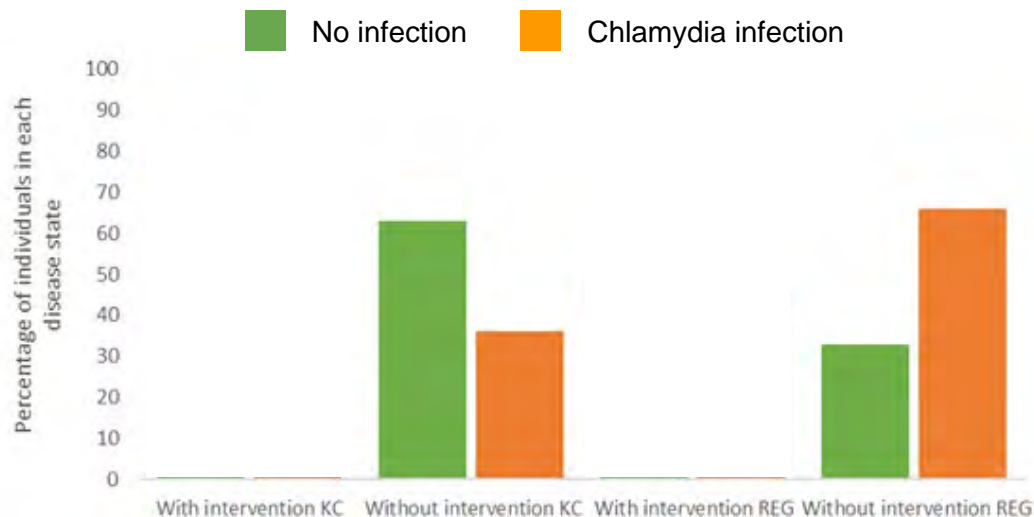
Preferred food trees species
listed as secondary importance
in the region



Foster and fuel

Koala Crossing disease rates lower than surrounding agricultural matrix

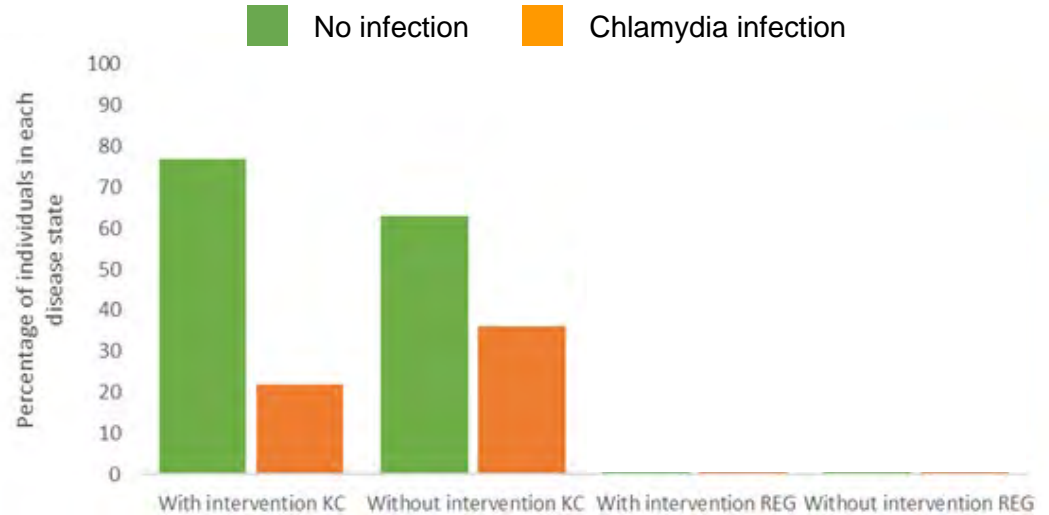
Intervention is shifting the balance of infection rates within our reserve and in the broader region



Foster and fuel

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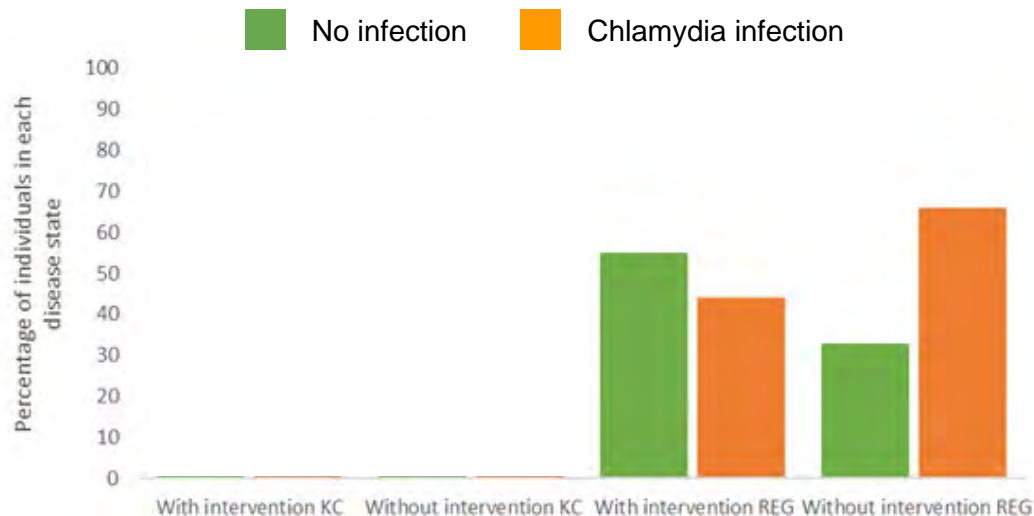
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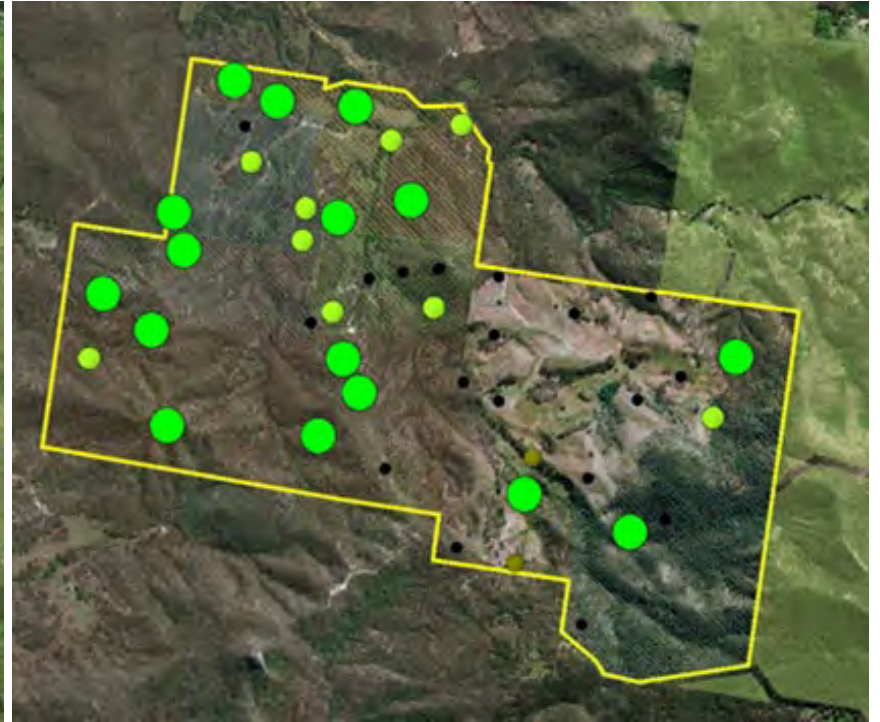
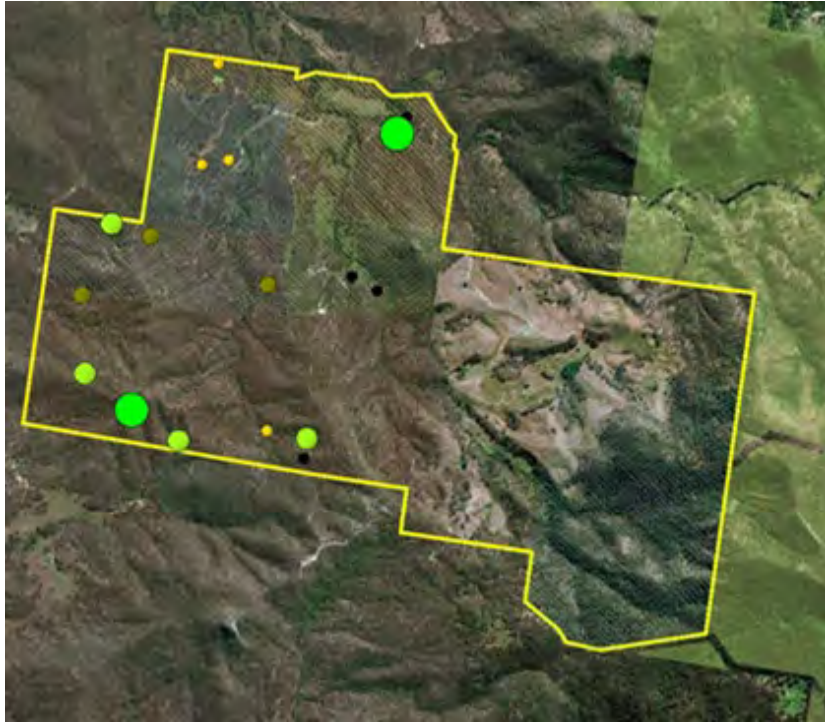
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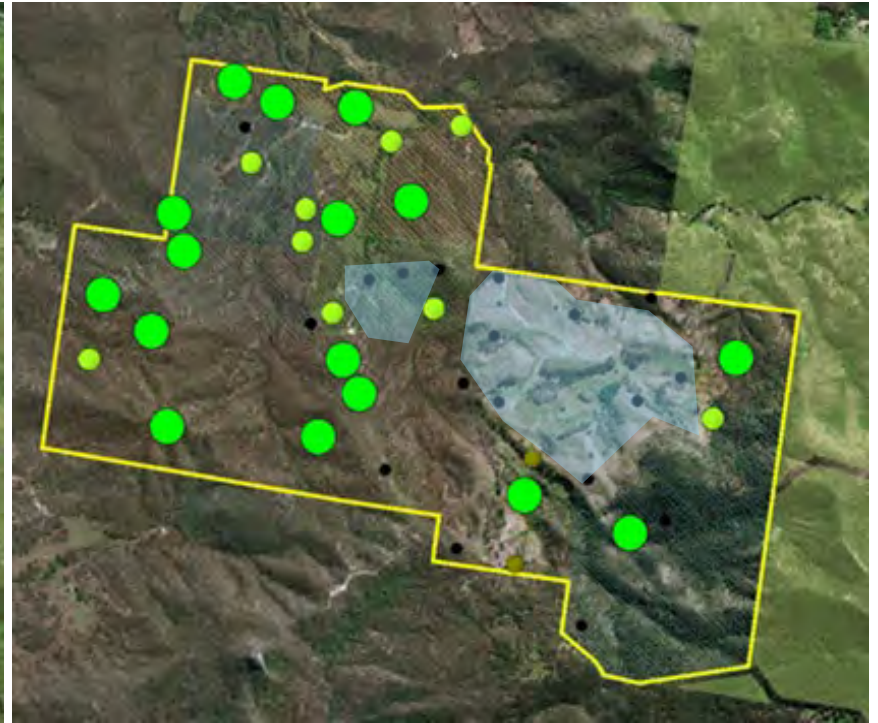
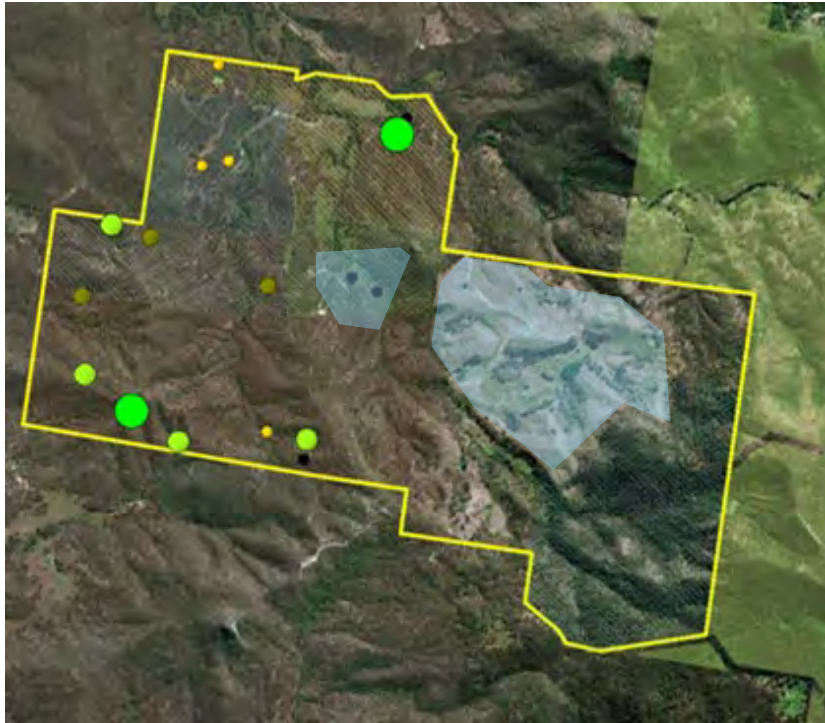
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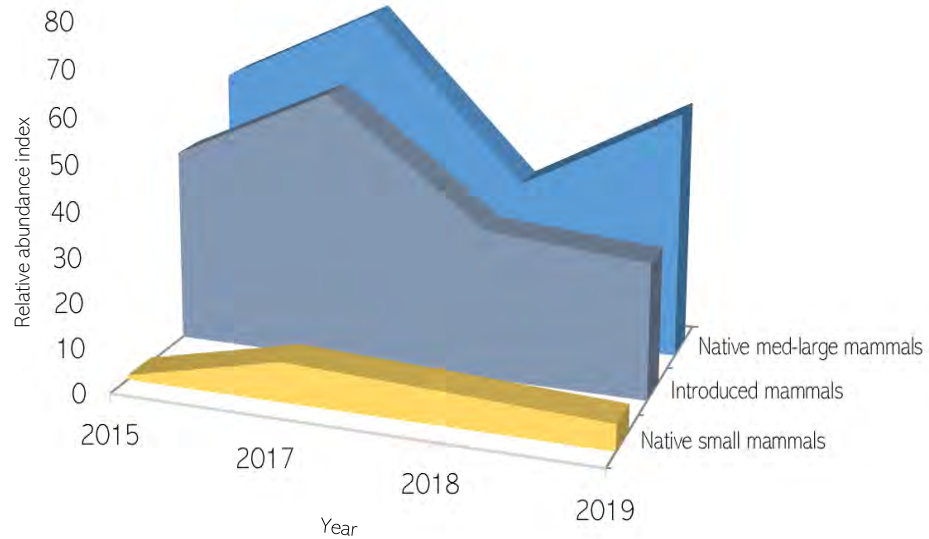
Early signs of increasing koalas



Early signs of increasing koalas



Returning balance of native v. non -native species



Train and engage

Teaching, learning and experiencing on our reserves an essential part of our work

School camps

Tertiary work experience

Community outreach



*Camp Koala
students from
Kimberley Park*



*University of Queensland
Undergraduate
students learning
the SAT method*

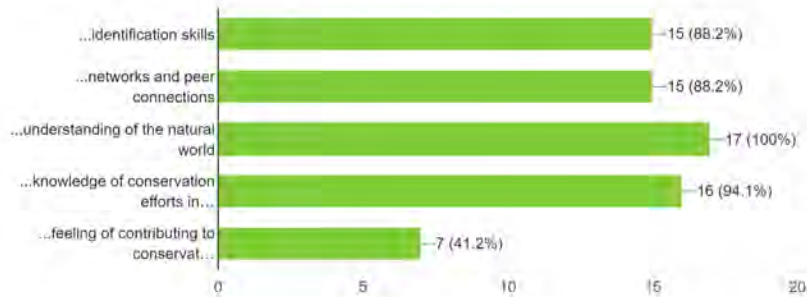


*Ipswich residents
helping out on
'1000 trees for KC'*

Social & educational impact

Do you feel that attending LandCamp helped you extend your...

17 responses



ANSWER CHOICES	RESPONSES	
I had a lot of fun	100.00%	10
I learned new things about invertebrate diversity	90.00%	9
I learned new things about the ways we study invertebrates	60.00%	6
I enjoyed spending my weekend in nature	100.00%	10
I learned about QTFN and how they work to conserve Queensland's wildlife	100.00%	10
I saw cool things other than invertebrates - koalas, wallabies, plants etc.	100.00%	10
Total Respondents: 10		



Citizens, experts & QTFN staff surveying for invertebrates



Offsets with outcomes

Less dispersal & recruitment
blocking weeds

Improved vegetation structure

Early signs of improved koala
occupancy and activity

Returning balance of native to non-
native species

Social and educational impact

*Pretty-face wallabies
(Macropus parryi) on QTFN
Koala Crossing*

What can we do to make the system better?

Use the offset system to strategically extend and improve habitat

Design and collect data rigorously to guide adaptive management

Extend reach beyond compliance to environmental and social dimensions



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